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## Ecological Milan!

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How contemporary Global and Local architecture and urban practices can change our idea of ecology and sustainability

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### Synopsis

The main aim of this paper is to critically reflect upon the very notion of ecological practice principles, employing recent case-study practices in order to redefine contemporary culture that may affect future architectural projects, representations and practices. The noteworthy ready-built projects in Milan, will be under investigation for their loaded or real ecological values in their own scales as well as for the city. The attempt is to reflect upon the criteria which today Milan and citizens are expecting from the two main existing camps of ecological practices; one with considerable financial and physical corporative-like scale and the other with local grassroots participatory approaches. The paper though tries to portray the critical contemporary landscape of ecological practices in today's Milan, where binary oppositions like globalization and localization, top-down private and bottom-up participatory processes, high and low tech, artificial and natural solutions are in direct dialogue with each other.

**Key words:** Milan, Ecological practice, Sustainable Culture, Global/Local, metropolis.

The paper is aimed to critically reflect upon the very notion of ecological design principles in contemporary practices. The main hypothesis is based on the fact that advertising and claiming “ecology” for contemporary architecture and urban practices, may not necessarily result a real ecological practice. Technology, innovation and advancement of architectural techniques and materials may be great aids toward more ecological result however, it is not sufficient to call a building neither ecological nor sustainable only using those.<sup>1</sup>

The main aim of this paper is to explore contemporary case studies in Milan which has been surfacing either with significant urban and architectural transformations or gradually under the skin of the city, all since the beginning of the 21st century. The attempt is to learn from them, investigate them within their own expected outlines of ecology—either accomplished by international renowned architectural and construction firms, or by grassroots participatory processes— and to re-evaluate their loaded and real ecological and cultural values in and for the city.

The significant ready-built projects in Milan such as *Bosco Verticale* and *Porta Nuova project*, *Feltrinelli Foundation* and *City Life* projects are under investigation in this comparative paper. Those kind of practices which have global advertisement scale, designed and built mostly by *archistars* (= Starchitect), has more international architecture and urban languages and most of all use very much advance technologies and materials. They are representing the new image of Milan, as one of the major capitals of contemporary Europe. And, of course, there is always a claim of sustainability. Some certificates, like LEED, are also confirming that claim, and that by itself effects on the popular culture and expectation of the city.

This newfangled trend of change in urban morphology and typology of Milan is faster, bigger and more exaggerated than any similar ones since post WWII reconstructions period, especially in terms of their international publicity. For instance, within less than five years from its construction, *Bosco Verticale*--with its four green façades and the claim to produce significant amount of oxygen and biodiversity per year-- became a new model of housing and botanical verticality, published even from early phases in American journals and very fast exported to Asia and in specific in China. It is fashionable, innovative and lots of technological and botanical advancements and engineering has been put into it. The popular culture loves it, and it triggered more important international attempt of future urban foresting ongoing by the same Architecture firm.

However, further observation is desirable for this new trend to be agreed truthfully ecological especially for their economic concerns and their social outcomes. In the case of *Bosco Verticale* for instance, the two towers’ embodied energy, technological costs and energy consumption of the towers or the continuous maintenance costs and efforts that especially planted facades of the buildings require during their lifespan, are some factors which enquire future studies.

The other end of spectrum of today Milan ecological practices is what this

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<sup>1</sup> Biraghi, 2017.

paper would like to call “local grassroots practices” where normal people, citizens and migrants participation in a very local and mostly low-tech practices manifest under Milan city skin<sup>2</sup>. Projects like *Welfare di tutti*, *Urban farming programs*<sup>3</sup>, Earth Service, TerraViva workshops, ASC (*Attivare Spazi Comuni*), *Green Island* and *aMAZE cultural lab*, are practices with very small scale and ambitions, genuine participatory oriented and again claim to be ecological, yet their approach is identical much different from the first category which was explained. Also, this second trend is very successful and actors involve has arrived to actualization of their ideas, people participates actively and their programs are moving forward. They have their own impact on Milan and their own aspect of being ecological practices.

Nevertheless, there always remains an uncertainty about the actual and future possible horizon of those practices; if those grassroots practices within small scales, will be able to reach out to neighborhood scale and push the boundaries to reach the city scale, and therefore raising up consensus through the process toward upper levels of the city administration, and produce a real paradigm change in the city culture.

This paper dose not claim one trend for the other, as both shape the overall culture of contemporary Milan architecture and urban practices. To comprehend better the definition of ecological practices and their principles in between those actual existing trends, one should critically reflect upon at least the existing aspects of ecology in those practices. What are the contemporary and relevant aspects of being ecological which one can redefine the two trends with? Is it enough to rethink of ecological practice in terms of conventional categories like materials and construction technique or plants and greenery or there is a need for a fresh view on non-conventional factors?

For instance, an event such as Milan Expo 2015 as the main context/platform for both trends, can be considered as a tangible trigger for both the two toward more ecological post-Expo architecture and urban practices? Has the cultural impact of such mega event facilitated any of the two trends towards their desirable horizons? Having reviewed selected practices from both trends, it may be possible to portray more in details the critical contemporary landscape of ecological practices in Milan, see-through different aspects of those practices in two ends of the spectrum of current trends, where binary oppositions like globalization and localization, top-down private and bottom-up participatory processes, high and low tech, artificial and natural solutions are in direct dialogue with each other.

Once again in this context, the two categories of *global* and *local* confront each other, acting on a script in which the dialectic between the two terms struggles to find a comparative common ground. Both practices associated with each, presented in this text, declare to be ecological, and in their own ways, contribute to defining and expanding the culture of sustainability. It would be advisable to begin to critically interpret the actual ecological nature of these practices, the extent of their impacts, the coherence of their choices, with the aim of constructing a more effective dialogue between the cultures of sustainability and

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<sup>2</sup> Ingersoll, 2004.

<sup>3</sup> Donadieu, 1998.



ecological practices in the city.

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## Biography

**Marco Bovati.** (Milan, 1968) Architect graduated with honors from the faculty of Architecture and received his Ph.D. cum laude in Architecture and Urban Composition, both at Politecnico di Milano (2005).

He is currently Associate Professor in Architectural and Urban Design at the Department of Architecture and Urban Studies (DASU), and Architectural Design instructor at AUIC School of Politecnico di Milano.

His research topics include: the relation between architecture and urban design and sustainability; Energy cycle control and environmental quality; strategies for sustainable architecture and urban regeneration, with particular attention to the intermediate urban scales (block, district); the role of environmental features in defining the guidelines for future interventions; reuse and recycling of abandoned soils, buildings and tissues in contemporary city.

Since 1998 he has been an active designer and professional. In 2003, he founded the BiO2 Architettura Paesaggio Ambiente studio in Albino (BG) with M. Arch. Luca Berta.

**Arian Heidai Afsahari.** (Kerman, 1984) Iranian Milan-based Architect, he has received his Ph.D. cum laude in architecture, urban and interior design from the Department of Architecture and Urban Studies (DASU), Politecnico di Milano, Italy. Since 2013, He has been collaborating with DASU and the School of Architecture, Urban Planning and Construction Engineering (AUIC) at Politecnico di Milano, participating in national and international research and didactic activities, mainly in the architecture and urban design scientific sector. He is a former teaching fellow and regular visiting researcher at Centre for Environmental Planning and Technology (CEPT University), in Ahmedabad, India. His research is mainly focused on the theory and history of the peri-urban territory as well as investigating in multidisciplinary strategies, methods, and tools to analyze and project in the emergent 21st-century sprawl in the Global South.